CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended)) ~~Receiver (1,11)~~ A receiver comprising:

a receiving stage ~~(2,12) for receiving~~ that receives frequency signals;

a mixing stage ~~(3,13)~~ coupled to the receiving stage ~~(2,12) for generating~~ that generates converted frequency signals;

a modulating stage ~~(4,14)~~ coupled to the mixing stage ~~(3,13) for~~ that delta-sigma ~~modulating~~ modulates the converted frequency signals; and

a filtering stage ~~(5,15)~~ coupled to the modulating stage ~~(4,14) for filtering~~ that filters the delta-sigma modulated converted frequency signals, wherein the filtering stage comprises a decimator receiving an output signal from a time-control loop having a loop quantizer and a loop filter.

2. (Currently Amended) ~~Receiver (1,11) as defined by~~ The receiver of claim 1, wherein the modulating stage ~~(4,14)~~ comprises:

a delta-sigma modulator ~~(41,42,43,90)~~ comprising:

a low-pass filter ~~(91)~~;

a ~~quantiser (92)~~ quantizer coupled to the low-pass filter ~~(91)~~; and

a digital-to-analog converter ~~(93) for feeding~~ that feeds back an output of the ~~quantiser (92)~~ quantizer to an input of the low-pass filter ~~(91)~~.

3. (Currently Amended) ~~Receiver (1,11) as defined by~~ The receiver of claim 2, wherein the low-pass filter ~~(91)~~ comprises a time-continuous filter.

4. (Currently Amended) ~~Receiver (1,11) as defined by~~ The receiver of claim 1, further comprising:

a further mixing stage ~~(6,16)~~ coupled to the filtering stage ~~(5,15) for generating~~ that generates baseband signals; and

a further filtering stage ~~(7,17)~~ coupled to the further mixing stage ~~(6,16) for~~ that performs channel selective filtering of the baseband signals.

5. (Currently Amended) ~~Receiver (1) as defined by~~ The receiver of claim 1, wherein the mixing stage ~~(3)~~ comprises a mixer ~~(32)~~, and the modulating stage comprises a delta-sigma modulator ~~(41)~~.

6. (Currently Amended) ~~Receiver (11) as defined by~~ The receiver of claim 1, wherein the mixing stage ~~(13)~~ comprises:

a first mixer ~~(34) for generating~~ that generates in-phase signals and

a second mixer ~~(35) for generating~~ that generates quadrature signals, and the modulating stage ~~(14)~~ comprises:

a first delta-sigma modulator ~~(42) for~~ that delta-sigma ~~modulating~~ modulates the in-phase signals, and

a second delta-sigma modulator ~~(43) for~~ that delta-sigma ~~modulating~~ modulates the quadrature signals.

7. (Currently Amended) ~~System (100)~~ A system comprising:

a transmitter; ~~(101)~~ and

~~comprising~~ a receiver ~~(1,11)~~ which comprises:

a receiving stage ~~(2,12) for receiving~~ that receives frequency signals;

a mixing stage ~~(3,13)~~ coupled to the receiving stage ~~(2,12) for generating~~ that generates converted frequency signals;

a modulating stage ~~(4,14)~~ coupled to the mixing stage ~~(3,13) for~~ that delta-sigma ~~modulating~~ modulates the converted frequency signals; and

a filtering stage ~~(5,15)~~ coupled to the modulating stage ~~(4,14) for filtering~~ that filters the delta-sigma modulated converted frequency signals, wherein the filtering stage comprises a decimator receiving an output signal from a time-control loop having a loop quantizer and a loop filter.

8. (Currently Amended) ~~Modulating/filtering~~ A modulating/filtering stage ~~(10,20)~~ for use in a receiver ~~(1,11)~~ comprising:

a receiving stage ~~(2,12) for receiving~~ that receives frequency signals;

a mixing stage ~~(3,13)~~ coupled to the receiving stage ~~(2,12) for generating~~ that generates converted frequency signals;

~~the modulating/filtering stage (10,20) comprising~~

a modulating stage ~~(4,14)~~ coupled to the mixing stage ~~(3,13) for~~ that delta-sigma ~~modulating~~ modulates the converted frequency signals; and

a filtering stage ~~(5,15)~~ coupled to the modulating stage ~~(4,14) for filtering~~ that filters the delta-sigma modulated converted frequency signals, wherein the filtering stage comprises a decimator receiving an output signal from a time-control loop having a loop quantizer and a loop filter.

9. (Currently Amended) ~~Method~~ A method for receiving frequency signals ~~and~~ comprising: ~~the steps of~~

generating converted frequency signals;

delta-sigma modulating the converted frequency signals; and

filtering the delta-sigma modulated converted frequency signals, wherein the filtering uses a decimator receiving an output signal from a time-control loop having a loop quantizer and a loop filter.

10. (Canceled)

11. (New) The receiver of claim 1, wherein the loop filter further comprises:

an adder that combines a detected signal with a feedback signal, thereby producing a sum;

an inverse z block that receives the sum and produces the feedback signal; and

a gain block that processes the feedback signal to produce the output signal that is sent to the loop quantizer to control the decimator.